

# PATENT COOPERATION TREATY

## PCT

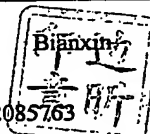
REC'D 03 JUN 2005

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY (Chapter II of the Patent Cooperation Treaty)

PCT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference CPGNA20466		FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/CN02/00941	International filing date (day/month/year) 31.Dec 2002(31.12.2002)	Priority date (day/month/year) 05.Dec 2002(05.12.2002)	
International Patent Classification (IPC) or national classification and IPC IPC7:G01N30/60,B32B31/00			
Applicant CAPITAL BIOCHIP COMPANY,LTD. et al			
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>			
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>			
Date of submission of the demand 31 Dec.2002(31.12.2002)		Date of completion of this report 5 May 2005(05.05.2005)	
Name and mailing address of the IPEA/ 6 Xitucheng Rd.,Jimen Bridge,Haidian District, Beijing,100088,China		Authorized officer	
Facsimile No. 86-10-62019451		Telephone No. 86-10-62085763	



**Box No. I Basis of the report**

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))  
☐ publication of the international application (under Rule 12.4)  
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on (*replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report*):

☒ the international application as originally filed/furnished

☐ the description:

pages \_\_\_\_\_ as originally filed/furnished

pages \* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages \* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ the claims:

pages \_\_\_\_\_ as originally filed/furnished

pages \* \_\_\_\_\_ as amended (together with any statement) under Article 19

pages \* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages \* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ the drawings:

pages \_\_\_\_\_ as originally filed/furnished

pages \* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages \* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International Application No.  
PCT/CN02/00941

**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement:

Novelty (N)	Claims 1-47	YES
	Claims	NO
Inventive step (IS)	Claims 1-47	YES
	Claims	NO
Industrial applicability (IA)	Claims 1-47	YES
	Claims	NO

## 2. Citations and explanations (Rule 70.7)

Claims 1-47 meet the criteria set out in PCT Article 33(4) for industrial applicability.

US5658413 is considered to represent the most relevant state of the art and discloses miniaturized planar column devices which comprise microstructures fabricated by laser ablation in a variety of novel support substrates (columns 4-22, figure 1B, 7A, 7B, 8A, 8B). Since this invention relates to microfabricated channel, which is different from US5658413, claims 1-47 are new and not obvious over US5658413, they do have novelty and inventive step under PCT Article 33(2) and (3).

US5792943 discloses a planar separation column device which includes complementary microstructures formed in a planar foldable substrate (columns 3-21, figure 5, 6A, 6B). US4935040 (columns 4-10, figure 1-5, 7) also relates to gas chromatographic columns, especially about laminated wafers with channels. But, they also do not disclose the same channels as this invention, so claims 1-47 are new and not obvious over these two documents.